

## ABSTRACT OF THE DISCLOSURE

Myc protein is an unevenly distributed intermediate agent for cell proliferation, and activates a gene expression via E.box. Mina53 gene encodes a protein of 53 kDa molecular weight and is present in the nucleoplasm and nucleolus. Mina53 mRNA and protein expression are induced by artificial introduction of c-Myc activity. E.box site is present in the vicinity of the transcription initiation site of mina53 gene, and the expression from mina53 promoter is activated by c-Myc through the medium of E.box. Specific inhibition of mina53 expression in HeLa cells and rat fibroblast cells 3Y1 having high expression c.myc strikingly inhibits cell proliferation. The combination of these results show that mina53 is a Myc target gene and is associated with cell proliferation in mammals.